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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,405	03/09/2001	Wolf-Dietrich Weber	02998.P013	5453

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EXAMINER

SIDDIQI, MOHAMMAD A

ART UNIT	PAPER NUMBER
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2154

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/802,405	Applicant(s) WEBER ET AL.	
	Examiner Mohammad A Siddiqi	Art Unit 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/21/2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 14-16, 20-27 and 31-43 is/are rejected.
- 7) ☒ Claim(s) 11-13, 17-19, 28-30, 35 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Claims 1-36 are presented for examination

Allowable Subject Matter

2. Claims 11-13, 17-19, 28-30, and 35-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10, 14-16, 20-27, and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over House et al. (5,274,783) (hereinafter House) in view of Wills et al. (6,002,692) (hereinafter Wills).

5. As per independent claims 1,14, 20 and 31, House discloses a method for communicating data between functional blocks (see abstract), in a computing device, comprising:

establishing a thread identifier (fig 1, col 2, line 60), for each independent data stream between an initiator functional block and a target functional block, wherein a plurality of independent data streams exist between the initiator functional block and the target functional block, (fig 1, col 2, lines 34-67);

if the target functional block is unable to accept a data transfer from the initiator functional block (col 9, lines 10-25), the target functional block issuing a busy signal identified by the thread identifier (col 9, lines 25-36);

the initiator functional block withholding issuance of data transfers associated with the thread identifier in response to the issued busy signal (col 9, lines 20-36), wherein data transfers not associated with the thread identifier identified by the issued busy signal may be issued (col 9, lines 25-36); and

mapping a data flow from the initiator functional block to the target functional block to a thread indicated by the thread identifier (col 2, lines 24-67, col 6, lines 49-67);

House does not specifically disclose to meet a service guarantee on a per thread identifier basis.

However, Will discloses to meet a service guarantee on a per thread identifier basis (col 5, lines 19-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Will with House because it would provide a guaranteed throughput

6. As per independent claims 2, and 21, House discloses the busy signal comprises a signal that is maintained active when the target functional block is unable to accept data transfers (fig 7, col 9, lines 10-36).

7. As per claims 3 and 22, House discloses teach the busy signal comprises a credit signal used to communicate a number of credits that indicate how many data transfers the target functional block can accept (asserted and deasserted fig 7, col 5, lines 30-46,col 8, lines 34-67, col 9, lines 1-41).

8. As per claims 4 and 23, House discloses decrementing the number of credits for each active data transfer and incrementing the number of credits upon freeing up of resources for further data transfers (asserted and deasserted fig 7, col 5, lines 30-46,col 8, lines 34-67, col 9, lines 1-41).

9. As per claims 5 and 24, House discloses credit signal is generated by maintaining the signal in an active state for a number of clock cycles corresponding to the number of credits (asserted and deasserted fig 7, col 5, lines 30-46, col 8, lines 34-67, col 9, lines 1-41).

10. As per claims 6 and 25, House discloses the credit signal comprises a coded signal comprises a multi-bit coded signal indicative of the number of credits (asserted and deasserted fig 7, col 5, lines 30-46, col 10, lines 38-65).

11. As per claims 7 and 26, House discloses at least one transaction stream between initiator functional blocks and the target functional blocks.

House does not specifically disclose determining service guarantees.

However, Wills discloses determining service guarantees (col 5, lines 19-34).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Wills with House because it would provide a guaranteed throughput.

12. As per claims 8, 16, and 33 House discloses the initiator functional block stopping to send data transfers so that the target functional block

receives no more than a determined number of data transfers after issuance of the busy signal (col 9, lines 10-65).

13. As per claims 9,15, 27 and 32, House discloses the target functional block issues a busy signal no more than a determined number of clock cycles after the target functional block determines that it has insufficient buffer space to receive data transfers from an initiator functional block (fig 1-3, (fig 1, col 2, lines 34-67, col 5, lines 20-33)

14. As per claim 10, House discloses the target device buffering the data transfers received after issuance of the busy signal until resources become available to service the buffered data transfers (fig 7, col 5, lines 30-46,col 8, lines 34-67, col 9, lines 1-41).

Response to Arguments

15. Applicant's arguments filed 10/21/2004 have been fully considered but they are not persuasive.

16. In the remarks applicants argued:

- A. House does not disclose the existence of multiple independent data stream.
- B. House does not disclose establishing the thread identifier for each independent data.
- C. House does not disclose actually issuing data transfers not associated with thread identifier.

17. In response to applicants argument A-C: establishing a thread identifier (fig 1, col 2, line 60), for each independent data stream between an initiator functional block and a target functional block, wherein a plurality of independent data streams exist (signals, col 5, lines 43-56) between the initiator functional block and the target functional block (fig 1, col 2, lines 34-67); if the target functional block is unable to accept a data transfer from the initiator functional block (col 9, lines 10-25), the target functional block issuing a busy signal identified by the thread identifier (col 9, lines 25-36); the initiator functional block withholding issuance of data transfers associated with the thread identifier in response to the issued busy signal (Fig 7A-8B,col 9, lines 20-36 and col 8, lines 34-67), wherein data transfers not associated with the thread identifier identified by the issued busy signal may be issued (Fig 7A-8B,col 9, lines 20-36 and col 8, lines 34-67); and

mapping a data flow from the initiator functional block to the target functional block to a thread indicated by the thread identifier (col 2, lines 24-67, col 6, lines 49-67); Will discloses to meet a service guarantee on a per thread identifier basis (col 5, lines 19-34). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Will with House because it would provide a guaranteed throughput.

Examiner notes that while specific references were made to the prior art, it is actually also the prior arts in its entirety and the combination of the prior arts in its entirety that is being referred to.

Examiner notes that it is the Applicant's claims as stated in the Applicant's claims that are being rejected with prior art. For example, the "data streams " of claim 1 is interpreted as a 'signals'. Signals being transmitted are information. They can be spoken words such as telephone conversation, music, or even computer data. 'thread identifier' is interpreted as 'connection identifier' or unique identifier, all of these terms are well known in the inter-process communication art.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

19. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 6,223,274


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad A Siddiqi whose telephone number is (571) 272-3976. The examiner can normally be reached on Monday -Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MAS

 JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
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